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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,800	04/15/2004	Karlheinz Schreyer	071308.0532	6652

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EXAMINER

HERRERA, DIEGO D

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/824,800

Applicant(s)

SCHREYER ET AL.

Examiner

Diego Herrera

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 8 is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Specification

1. Examiner takes notice of the amended objections made previously and is satisfied with applicant's changes: concerning the spelling of "from" in abstract and erasing the article "a" from the specification.
2. The Examiner retracts the objection to the title of the invention as the title of the invention has been amended.

Response to Arguments

3. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any

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inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1, 3-7, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehmusto et al. (U.S. Patent 5907794), and in view of Larsen et al. (U.S. Patent # 6,473,617 B1).

8. Regarding claim 1, Lehmusto et al. shows and discloses a method for registering a new subscriber in a radio system having a central system and a plurality of subscribers (Fig. 1, note: figure 1 shows multiple users in the vicinity and the base station being the central system providing radio communication service through a repeater), said central system and said subscribers comprise a transmission and a receiving device (Fig. 1-4, note: base station communicating with user terminal through repeater also shown is the transceiver on a user

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equipment and on the repeater transmitting to the base station, col. 6 lines: 45-57, col. 7 lines: 25-60, Lehmusto teaches the user equipment and base station capabilities of communication), said subscribers can establish direct radio contact with the central system or indirect contact via one or more other subscribers as routers (Fig. 1, col. 1 lines: 17-24, Lehmusto teaches mobile and base {direct & indirect capabilities}, col. 4, lines: 37-43, Lehmusto teaches mobile to mobile to repeater to base station {indirect contact}), said method for registering comprising the following steps:

- a. A new subscriber sends a search signal to all subscribers that can be reached and selects a first router from subscribers that respond (col. 4, lines: 44-67, where Lehmusto teaches direct mode, i.e. searching in range of mobiles, repeater communicating with base station and mobile equipment collecting data about mobile equipments and other information. Fig. 1, shows a plurality of subscribers that establish a link to a subscriber and then to a central communication system through the repeater);
- b. The new subscriber sends an inherent registration request to the first router in the form of a message, said message contains a provisional address and an identifier of the central system assigned to the first router (col. 4, lines: 44-67, col. 1 lines: 20-35, where Lehmusto et al. discusses that the mobile is operating, figure 1 shows mobiles communicating a router from each other providing id and other information to central system or base station);

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c. However, Lehmusto et al. do not teach when, the central system inherently decides whether to accept or reject the registration request, and if accepted, the central system sends a response via the first router which contains a subscriber number and a system identifier which is accepted and stored by the new subscriber, nonetheless, Larsen et al. teaches the base station sends a response via the first router which contains a subscriber number and a system identifier which is accepted and stored by the new subscriber (col. 8 lines: 10-50, col. 10 lines: 19-30; Larsen teaches that mobile and base station can communicate between each other through directly or indirectly hence base station obtains a list of routers and the base station is able to use information to connect a call). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Lehmusto et al. to specifically include the central system inherently decides whether to accept or reject the registration request and the base station sends a response via the first router which contains a subscriber number and a system identifier which is accepted and stored by the new subscriber as taught by Larsen et al. for the purpose of reduction of interference (col. 1 lines: 30-35).

9. Consider claim 9, and as applied to claim 8 above, Lehmusto et al. does not disclose and shows wherein the new subscriber notifies the central system about the field strength with which it is receiving the signals from the subscribers that it can reach, and the central system creates from this data an optimum

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system configuration for transmission of messages via routers and notifies the subscribers of the radio system of this configuration.

10. Nevertheless, Larsen et al. shows and discloses the new subscriber notifies the central system about the field strength with which it is receiving the signals from the subscribers that it can reach, and the central system creates from this data an optimum system configuration for transmission of messages via routers and notifies the subscribers of the radio system of this configuration (col. 8, lines: 25-38, note: the word "hear" is understood to be strength, id, and other information transmitted between the new user and other users in the vicinity to be able to communicate).

11. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teaching of Lehmusto et al. to send information received by the new user about other subscribers that it can reach, and the central system creating from this data an optimum system configuration for transmission of messages via routers and notifies the subscribers of the radio system of this configuration taught by Larsen et al. for the purpose of the base station control the levels of modulation efficiency and the associated required carrier to interference ratio used by itself and the mobile stations in its area (col. 8, lines: 40-43).

12. Consider claim 3, and as applied to claim 1 above, Lehmusto et al. shows and discloses wherein after the new subscriber sends the search signal and the subscribers located within range respond by sending their address and an identifier of their system to the new subscriber, the new subscriber store the

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addresses and the associated system identifications in a list of potential routers, for which it defines the order in accordance with a pre-specified evaluation algorithm, and the new subscriber selects its first router from the list in accordance with its order and if its registration request is rejected by the system of the first router, selects a further router in each case in accordance with the pre-specified order of the list for sending the registration request again (Abstract; col. 6, lines: 22-37, talks about the collection of information and creation of a table of subscriber hence system choose how to distribute it's sources).

13. Consider claim 4, and as applied to claim 3 above, Lehmusto et al. shows and discloses wherein the new subscriber defines the order of potential routers on its list in accordance with the strength of the response signal (Abstract; fig. 1; col. 3 lines: 24-47; col. 4 lines: 44-58; Lehmusto describes the system and collection of information and data base form with users information i.e. signal strength, id, and other information concerning mobile user, he mentions the extraction of information that a user may collect for communication purposes).

14. Consider claims 5 & 6, and as applied to claim 3 above, Lehmusto et al. shows and discloses communication between the base station and mobile user through a router that liaises between the system and the user having collection of data.

a. However, Lehmusto et al. do not shows and discloses wherein the new subscriber first checks whether a central system is responding to its search signal and that in this case it puts the central system at the top of

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its list (abstract, fig. 1-2; as seen the interconnection between user and system through router).

d. However, Larsen et al. wherein the new subscriber first checks whether a central system is responding to its search signal and that in this case it puts the central system at the top of its list (col. 8 lines: 10-52, Larsen describes the system were it distinguished between going through various paths using user mobiles to get to the base station and locating base station in the vicinity with out routing or using other means to reaching base station, hence, putting base station at the top of preference or priority).

e. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Lehmusto et al. to specifically include wherein the new subscriber first checks whether a central system is responding to its search signal and that in this case it puts the central system at the top of its list as taught by Larsen et al. for the purpose to minimize interference (col. 1 lines: 30-37).

15. Consider claim 7, and as applied to claim 3 above, Lehmusto et al. shows and discloses wherein the new subscriber evaluates the system identifiers of the responding subscribers for the order of its list (col. 6 lines: 23-44, Lehmusto teaches the content of a table created with information about users identifiers to start evaluating which is best to use).

16. Consider claim 10, and as applied to claim 1 above, Lehmusto et al. shows and discloses wherein the signals of the new subscriber in each case with

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their provisional address (col. 5 lines: 5-10, Lehmusto et al. says maintenance of identifiers of mobile stations), are forwarded in precisely the same way as the signals with a unique address (col. 5 lines: 5-20, Lehmusto says identifiers are maintained and are collected, hence, identifiers or addresses have to be unique), in which case on the way to the central system the routers of the subscribers through which the messages pass are marked so that the response from the central system to the registering subscriber travels back on the same path (col. 5 lines: 44-67; col. 6 lines: 1-10, Lehmusto these selected sections are descriptive of a system that stores information with address or identifiers of the vector path define by new user or subscriber establishing communication with desired central system in which communication is set back and forth from users to router).

17. Consider claims 11 & 12, and as applied to claim 10 above, the combination of Lehmusto et al. and Larsen et al. shows and discloses wherein the subscribers through which the messages pass are marked by collecting their relevant addresses in the forwarded signals and allows routing with distributed lists (col. 5 lines: 5-22, & 44-67, col. 6 lines: 1-15, Lehmusto says the signals from all the mobiles around the vicinity are collected and identified with an identifier and list or tables are used to set up calls by routing through other users or mobile router; Abstract, Fig. 1, col. 8 lines: 10-50, Larsen says communication is essential via indirect or direct between mobile and base stations hence signals being forwarded).

Allowable Subject Matter

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Claims 2 & 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Das et al. (U.S. patent publication 20040203765 A1), "Continuous mobility across wireless networks by integrating mobile IP and GPRS mobility agents".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diego Herrera whose telephone number is (571) 272-0907. The examiner can normally be reached on Monday-Friday, 6:30AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kincaid G. Lester can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D.H.



NICK CORSARO
PRIMARY EXAMINER